Winter/Spring 2002



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A newsletter providing assistance in waste reduction to local governments. Published by Cal/EPA's Integrated Waste Management Board.

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What is a *Basic*?

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To assist local government officials and provide an overview of diversion and local assistance topics, the Board has developed a series of Web pages called *Basics. Basics* provide easy-to-grasp facts and answers to questions, such as "when do you use uniform material type definitions" and "what is a new generation study." All *Basics* include definitions, descriptions of the topic, key requirements, and links to legislation, statutes, and regulations sections. Basics are located on the Board's Local Government Central Web site at www.ciwmb.ca.gov/LGCentral/Basics/. The following *Basic* topics are currently available:

Base-Year Generation and Goal Measurement describes why accurate base-year waste generation tonnage is critical to diversion goal measurement. This *Basic* gives vital information on using base-year generation to estimate diversion rates. For example, jurisdictions must use the Board-approved base-year generation tonnage to estimate their report-year diversion rate. Also, base-year generation tonnage must include all sources of solid waste originating within a jurisdiction's boundaries and delivered to Board-permitted landfills and transformation facilities.

Board-Approved Adjustment Method and Goal Measurement discusses how the adjustment method affects goal measurement. For instance, without the adjustment method, population increases and economic growth would result in lower diversion rates. The adjustment method uses the base-year generation amount and changes in population and the economy to estimate the generation amount in each report year. This *Basic* also furnishes information on using the adjustment method to estimate a diversion rate.

Disposal Reporting and Goal Measurement discusses how disposal is assigned to each jurisdiction. Disposal reporting assigns responsibility for all solid waste to the jurisdiction from which it came, for the purpose of calculating that jurisdiction's diversion rate. Counties receive disposal information from each licensed disposal facility within their boundaries. For example, solid waste sent to out-of-state landfills or to Native American lands is disposal, and each county must report this disposal every quarter, every year.

Look for Basics on regional agencies, alternative daily cover (ADC), biomass, and transformation!



infoCycling is published four times a year by the Integrated Waste Management Board, 1001 I Street, P.O. Box 4025, Sacramento, CA 95812-4025.

Phone: (916) 341-6240 E-mail: twebb@ciwmb.ca.gov

Editor, Tracy Webb

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Publication #342-02-016 *July 2002*

Printed on recycled paper containing a minimum of 30 percent postconsumer content.

New Waste Generation Studies. **Annual Generation-Based Diversion Rates and New Base Years** summarizes how the original solid waste generation studies quantified the amounts and identified the types of solid waste disposed and diverted. This Basic gives a description and the benefits of a new waste generation study as well as a number of facts about conducting a study. A benefit of a new generation study would be to help a jurisdiction understand its waste stream so the jurisdiction can choose diversion programs that best divert more solid waste from disposal. This Basic also presents benefits and facts about conducting a generation study rather than estimating a diversion rate to annually measure a diversion rate. For instance, an annual generationbased diversion rate can be submitted in an annual report. The Basic also outlines benefits and facts about conducting a generation study for a new base year.

State Agency Recycling outlines the waste diversion and reporting requirements for State agencies, large State facilities, and the Board. These requirements are a result of the passage of AB 75 (Strom-Martin, Chapter 764, Statutes of 1999). AB 75 required State agencies and large State facilities to develop and adopt an integrated waste management plan by July 1, 2000. The Board's requirements included providing technical assistance to State agencies and large State facilities for the purpose of implementing the integrated waste management plan.

Uniform Disposal Characterization Method

describes the method and furnishes information on when the method can be used. For example, local governments, solid waste managers, and others can use the "uniform disposal characterization method" when collecting data on the types and amounts of materials in their disposed waste stream. In order to design effective diversion programs, it is important to know what materials and what quantities are in the waste stream. Under certain conditions, the Board may require local governments to collect such data for reporting or planning purposes.

Uniform Material Type Definitions describes the definitions and provides information on when and how to use the definitions to benefit jurisdictions. For example, local governments should use this information when performing waste disposal characterization studies. Local governments will also find the uniform material type definitions useful when reporting on diversion programs in their annual reports to the Board. In addition, the uniform material type definitions can assist local governments in identifying and classifying materials for diversion program planning purposes.

If you have questions regarding the *Basics* or suggestions for topics, please contact Tracy Webb at (916) 341-6240 or twebb@ciwmb.ca.gov.

Electronic waste in your community

Communities throughout California are facing a growing challenge: how to manage a growing amount of outdated and unwanted electronic equipment. Computers, monitors, televisions, printers, copiers, and other electronic equipment— collectively known as "e-waste"—are a fast growing concern.

Last year, the Department of Toxic Substances Control (DTSC) introduced emergency regulations for cathode ray tubes (CRTs) found in televisions and computer monitors.

Final regulations for CRTs are currently under development by the DTSC and will replace the emergency CRT regulations now in effect. Public meetings will be scheduled to collect comments on the regulations. For more information, contact Charles Corcoran at (916) 327-4499.

CRTs contain hazardous constituents, including four to seven pounds of lead. Consequently, CRTs are banned from landfills in California. Communities large and small have responded with a variety of approaches for managing CRTs and diverting other electronic waste from landfills.

At the national and state level, electronic product stewardship initiatives are underway, bringing together electronic industry, government, and environmental interests to work toward a solution

to the growing "e-waste" problem. Local government input is critical to these initiatives.

Two projects currently underway solicited the concerns and perspectives of local government organizations, especially those responsible for managing the "e-waste" challenge. Each project includes a survey that we encouraged local government representatives to complete.

The first project is the Product Stewardship Support Project. Through this project, local governments made their voices heard in the national dialogues helping to shape the future of electronics recycling. This project supported the National Electronic Product Stewardship Initiative (NEPSI).

A survey collected input and documented the costs, trends, and lessons learned as California local governments developed new recycling programs for discarded electronic products. In addition, two workshops titled "Listening to Local Government" were held, one on May 29, 2002, in Long Beach and one on May 30, 2002, in Oakland. To learn more about this project, visit www.ciwmb.ca.gov/Electronics/Stewardship/.

The second project includes a survey initiated in April 2002 requesting input from local government agencies to better understand their highest priority "e-waste" issues. The survey can be accessed at www.ciwmb.ca.gov/Electronics/Surveys/Oplssues/. Your input will help us develop more tools and resources

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Electronic waste, continued from page 3

For valuable resources, go to the CIWMB's Electronic Product Management Web site.

for communities as they take on the challenge of "e-waste." For more information, contact Janet Munger at (916) 341-6382 or jmunger@ciwmb.ca.gov.

The CIWMB Electronic Product Management Web site www.ciwmb.ca.gov/Electronics/ is a valuable resource for information about "e-waste."

Check the Events page at www.ciwmb.ca.gov/Electronics/Events/ for upcoming collection events and conferences about "e-waste." E-mail us if you have an event or conference in your community, and we will add it to the Web site.

Look under Resources for a variety of information, including the publication *Setting Up & Operating Electronics Recycling/Reuse Programs: A Manual for Municipalities & Counties.*

Developed by the Northeast Recycling Council (NERC), this extensive manual helps you decide on a program model, from curbside or one-day collection events to ongoing collection. Also included are examples of request for proposals, press releases, customer surveys, and other documents. The manual can also be obtained through the NERC Web site at www.nerc.org/adobe/survey/index .html.

The searchable Electronic Product Management Directory (Directory), which can be accessed at www.ciwmb.ca.gov/Electronics/Collection/, provides information on organizations that reuse or recycle electronic equipment.

Here you can find organizations that contract with local governments to manage "e-waste," non-profit organizations that refurbish computers for distribution to schools, and organizations that provide "e-waste" recycling services to the public and businesses.

Consider linking to this directory from your Web site. If you know of an organization in your community that is not included in the directory, please contact Terri Cronin at (916) 341-6618 or tcronin@ciwmb.ca.gov.

New information is posted regularly on the Electronic Product Management Web site (www.ciwmb.ca.gov/Electronics/), so we encourage you to check the site often and provide input as new developments around "e-waste" occur in your community.

Recycledibles—final reports on the food scrap diversion contracts are available!

In June 2000, the Board awarded \$150,000 to help cities and counties target food scrap waste reduction. The awards went to the five most qualified bidders and were used to fund one-year food diversion projects. Pilot food scrap diversion programs were implemented at a non-profit organization, a large public venue, and several school cafeterias.

California Grey Bears implement a food scrap diversion program

The Santa Cruz County
Department of Public Works, in
partnership with the California
Grey Bears and Organic
Recyclers Anonymous, set up two
Earth Tub™ in-vessel composting
systems at the California Grey Bears'
site in Santa Cruz.

Earth Tubs™ are a mid-scale composting option, appropriate for grocery stores, restaurants, and institutions generating 50 or more pounds of food scraps per day. In 2000–2001, the program diverted over 11 tons of food scraps from the landfill. In the future, it is projected that 28.91 tons could be diverted annually. As added benefits, the compost generated from the Earth

Tubs™ was made available for volunteers working at the California Grey Bears' site to use free of charge and as a salable item at the site. This program was continued in the year 2002 and will continue in the years ahead.

For more information on the Santa Cruz County Department of Public Works, California Grey Bears, and Organic Recyclers Anonymous project methodologies, successes, challenges, and data, view their food scrap diversion contract final report on the Board's Web site at www.ciwmb.ca.gov/FoodWaste/CaseStudies/ or on the County of Santa Cruz Web site at www.dpw.co.santa-cruz.ca.us/foodscrap.html.

Indian Wells Tennis Gardens set up a food scrap diversion program

The City of Indian Wells, in coordination with the Indian Wells Tennis Gardens and EcoNomics, Inc., piloted a food scrap diversion program at the Indian Wells Tennis Gardens in 2000–2001.

Food scraps were collected for offsite composting, and the finished compost was used at the Tennis Gardens. The project provided data on the costs, benefits, diversion potential, and viability of a very large-scale food scrap diversion program.

This facility is located on 189 acres and has stadium seating for over 16,000 guests. In addition to the Tennis Masters Series, with a year 2001 attendance of over 190,000 for the two-week event, the project diverted food scraps from two

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A total of nine schools participated in food scrap diversion programs.

additional one-night concerts totaling over 8.13 tons of food scraps collected. Food scrap diversion proved to be both feasible and economically viable for all three events. The food scrap diversion program will continue and expand over the next few years.

For more information on the City of Indian Wells, Indian Wells Tennis Gardens, and EcoNomics, Inc.'s. project methodologies, successes, challenges, and data, view their food scrap diversion contract final report on the Board's Web site at www.ciwmb.ca.gov/FoodWaste/CaseStudies/.

Several schools start food scrap diversion programs

A total of nine schools participated in food scrap diversion programs. The schools are demographically and culturally diverse and represent both urban and suburban settings. Several common factors were identified and considered before adopting a food waste diversion program at these schools.

These factors are:

• Encourage a food waste diversion program as part of a comprehensive waste reduction plan and/or policy for the entire school district. In order for everyone involved to realize the value and cost savings to the district with the adoption of a food scrap diversion program, support of the school board and the district superintendent should be initially obtained.

- Establish a team of teachers, students, and parent volunteers to assist in implementing the food scrap diversion program.
- Pay a site coordinator to oversee the program, develop the team, and evaluate the initial waste stream. When establishing a baseline and determining what is being thrown away, the initial waste audit is perhaps the most important factor.
- Conduct regular waste stream audits. Audits are essential in keeping the program within budget and correcting problems.
- Allow plenty of time to set up a new program since schools are typically in session for nine months. Consider promoting and providing educational materials about the program in the fall and then formally kick it off after the school's winter/holiday break.
- Obtain the support of the waste hauler. If food waste is to be taken off-site for composting, a collection schedule set up with the organic waste hauler is imperative.
- Train all the students, cafeteria staff, and volunteers before the food scrap diversion program begins.
- Monitor the outdoor dumpsters because people may be illegally dumping waste materials in the dumpsters. Schools pay for the extra disposal. These dumpsters may need to be locked.

Continued on next page

The City of San Francisco Recycling Program

The City of San Francisco Recycling Program (SFRP) implemented food scrap collection programs at five local schools during the 2000–2001 school year. Four of these schools are elementary/middle schools and the fifth is a private high school.

With the help of the SFRP subcontractor, each of the schools designed a food scrap diversion program that encompassed education, outreach, organics collection for off-site composting, and some vermicomposting. All five schools have continued the food scrap diversion programs into the 2001–2002 school year and plan to continue these programs in future years.

The Lawton K-8 Alternative School reduced their cafeteria waste from eight to four 32-gallon solid waste containers a day. The school has 650 students. Lawton now has a once-a-week pick up of two 64-gallon organic waste toters.

The Katherine Delmar Burke School initially threw away 75.5 pounds of cafeteria waste per day before implementing a comprehensive recycling program. The school has 350 students. Burke now throws away only 17 pounds of solid waste and diverts 18 pounds of food scraps and other organic waste per day. The remaining 40 pounds of waste per day has been diverted by recycling beverage containers and by separating liquids. The school now has a once-a-week pick up of two 64-gallon organic waste toters.

The *Grattan Elementary School* reduced their organic waste from 50 pounds per day to 30 pounds per day. The school has 375 students. Grattan now has a twice-a-week pick up of one 64-gallon organic waste toter.

The Monroe Elementary School collected and diverted 70 pounds of food waste each day from the school. The school has 500 students. The food scraps were taken off-site for composting. The majority of the food scraps are now collected for off-site composting, and a small amount is used for vermicomposting. Monroe now has a three-times-a-week pick up of one 64-gallon organics toter.

The Saint Ignatius College Preparatory High School collected two 3-cubic-yard solid waste containers and two 2-cubic-yard paper recycling containers six days a week, plus a 20-cubic-yard debris box that was picked up about twice a month before the food scrap diversion program was established. The school has 1,350 students. Saint Ignatius now has pick up for one 3cubic-yard solid waste container, one 3-cubic-yard organic waste container, and two 2-cubic-yard paper containers six days a week. The debris box is now collected once a month.

For more information on the City of San Francisco Recycling Program's project methodologies, successes, challenges, and data, view their food

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scrap diversion contract final report on the Board's Web site at www.ciwmb.ca.gov/FoodWaste/Case Studies.

Davis Joint Unified School District

The Davis Joint Unified School District (DJUSD) piloted comprehensive food waste diversion projects at three elementary schools during the 2000–2001 school year.

The projects included a switch to an "offer-versus-serve" serving method, food rescue, recycling, and the collection of organic waste for onsite composting and vermicomposting.

The DJUSD's food scrap diversion program goals included developing and testing site-specific systems to reduce the lunch waste stream, and in particular, to reduce the food waste components of the lunch waste while engaging students in the ongoing practice of composting and recycling. All three schools continued vermicomposting in the 2001–2002 school year and plan to keep vermicomposting in future years. If the schools can acquire volunteers to oversee the food scrap separation, then this part of the food scrap diversion program will continue as well.

The *Birch Lane School's* waste stream totaled 4 cubic yards of solid waste picked up five times a week. The school has 649 students. After the implementation of the food scrap diversion program, Birch Lane's waste stream was not significantly reduced in the 2000–2001 school year. Program implementation included creating a

sorting station, separating the lunch trays out of the waste stream, and collecting 100 percent of the compostable food waste.

The school focused on separating some food waste for vermicomposting only. This was not a significant amount of waste. However, once the school implemented a program to recycle cardboard trays, the waste stream decreased dramatically. There is the potential to reduce the school's waste stream by a minimum of approximately 20 percent in the 2001–2002 school year by continuing to recycle the cardboard trays.

The Cesar Chavez School's waste stream was reduced from 6 cubic yards picked up every day to 4 cubic yards picked up four times a week, amounting to a 47 percent reduction. The school has 623 students. The reductions were phased in, starting with a switch to an "offer-versus-serve" serving method, food scrap separation for vermicomposting, a food share box, and switching to recyclable cardboard serving trays.

The *Pioneer Elementary School's* waste stream was reduced from 4 cubic yards picked up five times a week to 4 cubic yards picked up two and one-half times a week, resulting in a 50 percent reduction. The school has 795 students.

For more information on the Davis Joint Unified School District's project methodologies, successes, challenges, and data, view their food

Continued on next page

scrap diversion contract final report on the Board's Web site at www.ciwmb.ca.gov/FoodWaste/CaseStudies.

West Contra Costa Integrated Wasted Management Authority

The West Contra Costa Integrated Waste Management Authority (WCCIWMA) piloted a food scrap collection program with off-site composting at one school in the 2000–2001 school year.

The project was a joint effort between the local school district and the WCCIWMA, which have been successfully collaborating for the past two years on a district wide paper and beverage container recycling program. The WCCIWMA did not continue the food waste diversion program at Perez Elementary in the 2001–2002 school year. Without the continuation of Board funding, the WCCIWMA did not have staff available to oversee a continuation of this program at Perez.

The *Perez Elementary School's* food waste disposal was reduced 70 percent through careful monitoring and recycling. The school has 600 students. Food waste, biodegradable utensils, milk

cartons, and soiled paper were collected three times a week for composting off-site. Nearly all the students at Perez eat a hot lunch.

These lunches are prepared at a central kitchen off-site because schools in the district no longer have a kitchen or dishwashing facilities. Since very few lunches are brought from home, the school district could potentially have complete control over the cafeteria waste steam and the contaminates by adopting food service waste reduction strategies, such as reusable trays and serviceware.

For more information on West Contra Costa Integrated Waste Management Authority's project methodologies, successes, challenges, and data, view their food scrap diversion contract final report on the Board's Web site at www.ciwmb.ca.gov/FoodWaste/CaseStudies.

For additional information on these contracts or to learn more about managing food waste, visit the Board's Food Waste Management Web page at www.ciwmb.ca.gov/FoodWaste or contact Chris Kinsella at (916) 341-6274 or Ckinsell@ciwmb.ca.gov.

Disposal reporting system (DRS) survey week reminder

DRS regulations—Title 14, California Code of Regulations (14 CCR), Chapter 9, Article 9.2—require operators of permitted solid waste facilities to obtain jurisdiction-of-origin information for all loads of waste received during a minimum one-week period each quarter. The table below shows the standard origin survey weeks for 2002.

Standard Survey Weeks for 2002

First Quarter 2002 March 8–14, 2002

Second Quarter 2002 June 8–14, 2002

Third Quarter 2002 September 8–14, 2002

Fourth Quarter 2002 December 8–14, 2002

For additional disposal reporting dates and information, refer to the Board's Local Government Central Web site at www.ciwmb.ca.gov/LGCentral/DRS/.

See page 12 for a few of the recommendations from the Board adopted SB 2202 recommendations work plan.

Implementing the SB 2202 recommendations work plan

The Board was required to prepare a report to the legislature by January 1, 2002, on improvements to the disposal reporting system using a working group. The Board expanded their evaluation to include the entire diversion rate measurement system and the role of disposal reporting in that system.

From January 2001 through July 2001 over 70 volunteers worked closely with Board staff providing valuable input and potential

solutions to problems relating to the disposal reporting system, adjustment method, and alternatives to the diversion rate measurement system.

The recommendations developed are outlined in the report, *A Comprehensive Analysis of the Integrated Waste Management Act Diversion Rate Measurement System.* All jurisdictions and other interested parties had a chance to comment on three draft versions of the report between August 2001 and November 2001. The Board

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SB 2202 recommendations, continued from page 10

Read on to find out how to access the report, A Comprehensive Analysis of the Integrated Waste Management Act Diversion Rate Measurement System, and to view the entire list of recommendations.

approved the report at its November 2001 Board meeting and Governor Davis approved the report in April 2002. In addition, the Board adopted the SB 2202 recommendations work plan at its March 2002 Board meeting.

Next Steps implementing the recommendations

A few of the Board-adopted SB 2202 work plan recommendations are briefly summarized in the table on page 12. The task, task description, estimated time line for each task, and in some cases additional comments regarding the task are shown.

For the latest copy of the report, A Comprehensive Analysis of the Integrated Waste Management Act Diversion Rate Measurement System, and to view the entire list of recommendations, visit the Board's Web site at:

www.ciwmb.ca.gov/lglibrary/SB2202Rpt/.

To access the work plan, go to the Board's Web site at

www.ciwmb.ca.gov, select Board Agendas from the left side of the Web page, select the month of March and the year 2002 from the drop-down boxes and then select the Go button. Then, select Board Meeting beside the March 12–13 date. Scroll down to Agenda Item 1, and select Agenda Attachment to access the work plan.

If you have any questions regarding the report or the recommendations, contact the following Board staff in the Waste Analysis Branch:

Disposal Reporting—Denise Hume at (916) 341-6242 or dhume@ciwmb.ca.gov

Adjustment Method—Nick Cavagnaro at (916) 341-6213 or ncavagna@ciwmb.ca.gov

Alternatives—Nancy Carr at (916) 341-6216 or ncarr@ciwmb.ca.gov

A Few of the Board-Adopted SB 2202 Work Plan Recommendations

Task	Summary Description	Estimated	Additional
		Time Line	Comments
Legislative	Provide more incentives for	March 2002–	
Proposal	jurisdictions to form regional agencies.	end of session	
Enact	Revise disposal reporting	Informal	Begin formal regulatory
Regulations	system (DRS) regulations to	Process: March	process early 2003.
	improve accuracy using a	2002-	
	number of methods.	December 2002	
Enact	Consider use of alternative	Informal	Begin formal regulatory
Regulations	adjustment method factors	Process:	process mid-2003.
	and formulas that require	August 2002–	
	regulations revisions.	March 2003	
Enact	The Board is improving the	Continue with	The Board's current
Policy/	RMDZ program through	the Board's	strategic plan addresses
Procedures	several activities including	market	sustainability and
	investigating how best to	development	increasing markets for
	leverage RMDZ loan funds.	efforts.	recyclables.
Enact	Add standard "red flag" table	January 2002–	
Policy/	of circumstances that may	July 2002	
Procedures	decrease accuracy of		
	diversion rate estimate to		
	jurisdiction annual report and		
	Board's biennial review		
	agenda item (Accuracy		
_	Indicators).		
Enact	Increase the number and	June 2002–June	
Procedures	types of disposal reporting	2003	
	system reports available on		
	the Board's Web site,		
	including alternative daily		
	cover by material type and		
	jurisdiction disposal data by		
	disposal facility.		

Editor's note

I hope you enjoyed this issue of infoCycling.

Look for articles in the Summer 2002 issue of *infoCycling* on the year 2001 Trash Cutters and Starr Award winners, new Web pages on the Board's Local Government Central Web site, and an update on DRS site visits to landfills and transfer stations.

Please contact me with suggestions on articles you would like to see included in *infoCycling* and announcements of events in your jurisdiction.

I can be reached at (916) 341-6240 or at twebb@ciwmb.ca.gov.

Your comments and suggestions on *infoCycling* are always welcome!

Tracy

